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**AGREEMENT FOR REMEDIAL ACTION**

**EAST KAPOLEI PESTICIDE MIXING AND LOADING AREA**

**Kapolei, Hawai‘i**

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The State of Hawai‘i, Department of Health (“DOH”), and Department of Hawaiian Home Lands (“DHHL”), hereby enter into this voluntary Agreement For Remedial Action (“ARA”) relating to that certain Site identified in Section 5 below, and subject to the terms and conditions specified herein.

**1. Introduction**

The East Kapolei Pesticide Mixing and Loading (“PML”) Site became contaminated with pesticides and other hazardous substances due to agricultural practices related to sugarcane production. The impacted PML Site consists of former agricultural buildings and structures contained within a fenced Property, along with a portion of unfenced adjoining roadway, making up an estimated total of 1.6 acres. The PML Site is located within a larger 374.515-acre parcel identified as Tax Map Key (1) 9-1-017:09. The area around the Property was used to grow sugarcane from around 1800 to 1994. Pesticides such as atrazine, ametryn, DDT, DDE, diuron, glyphosate, dalapon, 2,4D, Trifluralin, and pentachlorophenol were used for sugarcane production. Dioxin and furans are generally present as contaminants in the manufacture of some herbicides.

Since 1990, a series of investigation and characterization activities have occurred at and near the property, which provide a substantial administrative record regarding contamination. Beginning in January 2009, with the submission of a Plan for Remediation to DOH, DHHL has voluntarily undertaken further investigative and intensive remediation activities at this Site. These investigative and remediation activities have been consistent with the requirements contained in the State Contingency Plan (“SCP”).

DOH and DHHL desire to enter into a voluntary ARA, which reflects DHHL’s ongoing investigation and remedial activities at the Site based on the terms and conditions under which the voluntary response action is being conducted by DHHL. This voluntary ARA recites the remediation will be conducted in compliance with the SCP. DOH and DHHL have prepared this voluntary ARA to define the framework for continuing the Site remedial actions.

**2. Authority**

- a. This voluntary ARA is entered into pursuant to the authority vested in the Director of the DOH by Sections 128D-4, 128D-5, and 128D-6 of

Chapter 128D, Hawai‘i Revised Statutes, the Environmental Response Law (“ERL”).

- b. DHHL recognizes and agrees not to contest the DOH’s jurisdiction to enter into and enforce this voluntary ARA.
- c. This voluntary ARA shall apply to and be binding upon the DOH and DHHL, as well as upon their agents, successors, assigns, officers, directors and principals. The DOH and the DHHL signatories to this voluntary ARA certify severally that they are each authorized to execute and legally bind the parties they represent to this voluntary ARA. No change in ownership, corporate status, or partnership status of any of the parties shall alter that party’s responsibilities under this voluntary ARA without written consent of the DOH, which consent shall not unreasonably be withheld. Notwithstanding anything herein to the contrary, the DOH agrees that a signatory to this voluntary ARA may, with prior written approval of the DOH, which shall not be unreasonably withheld, assign its rights and obligations under this voluntary ARA to another corporation, person or entity, as described in Section 18(f).

### **3. Statement of Purpose**

In entering into this voluntary ARA, the mutual objectives of the DOH and DHHL are:

- a. To conduct the remedial action described in the *Scope of Work* (“SOW”), a copy of which is attached as Attachment A and by this reference made a part of this voluntary ARA. The *Scope of Work* outlines the contemplated work process and includes a list of reports, documents, and other deliverables that have been required or may be required for review, comment, and/or approval by the DOH.
- b. To undertake all actions required by the terms and conditions of this voluntary ARA in accordance with the provisions of the ERL and of the SCP, Hawai‘i Administrative Rules, Title 11, Chapter 451.

### **4. Definitions**

The terms listed below shall have the following meanings in this voluntary ARA:

- a. “Agreement” or “ARA” shall mean this voluntary Agreement For Remedial Action, and its attachments, including the attached SOW, and any agreed-upon amendments thereto.

- b. “Contractor” shall mean EnviroServices and Training Center LLC, the consultant under contract with DHHL to accomplish items 2.2 through 2.15, and 2.19, 2.20, and 2.22, inclusive of the attached SOW.
- c. “Oversight Costs” shall mean all costs consistent with the SCP incurred by the DOH or a contractor engaged by the DOH to assist it in overseeing work performed by DHHL pursuant to this voluntary ARA, to ensure that such work is consistent with the SCP and this voluntary ARA.
- d. “Parties” shall collectively mean the DOH and DHHL.
- e. “Property” shall mean the original pesticide mixing and loading facility and location described in Section 5.
- f. “Remediation Contractor” shall mean the contractor selected to accomplish items 2.18 and 2.21 of the attached SOW.
- g. “*Scope of Work*” or “SOW” shall mean Attachment A.
- h. “Site” shall mean the combined Property and portion of the road adjoining the Property that are generally delineated on the Tier 1 contaminant map provided by EnviroServices to DOH on August 2007 and that is subject to the voluntary response action specified in this voluntary ARA.
- i. “Work” means the response action being conducted by DHHL pursuant to the provisions of Chapter 128D, HRS, Chapter 11-451, Hawai‘i Administrative Rules, this voluntary ARA and the attached SOW.

## **5. Site Description**

- a. The Property consists of a fenced area approximately 0.634 acres in size. The Site comprises the combined impacted Property and impacted portion of the road area that cover an estimated total of approximately 1.6 acres. The Site is located within the 374.515-acre parcel identified as Tax Map Key (1) 9-1-017: 093. The Site has no assigned street address and is located off Palehua Road, an unimproved road, at Honouliuli, Ewa, Oahu, Zip Code: 96706. The Site and surrounding land is now owned by DHHL.
- b. The Site is located in an agricultural zoned area. The fenced Property and the surrounding lands were used to cultivate sugarcane from around 1890 to 1994; first by Ewa Plantation, and then by Oahu Sugar Company Ltd. (hereafter referred to as “Oahu Sugar”). Oahu Sugar leased the Property and the agricultural lands surrounding it from the Estate of James Campbell. The State of Hawai‘i acquired the Property and surrounding lands from James Campbell Estate through condemnation proceedings on August 22, 1994 by Land Court document No. 2181717, recorded at the

State of Hawai'i Bureau of Conveyances on September 21, 1994. The site was managed for the State by its Department of Land and Natural Resources (DLNR) until conveyance to DHHL in February 2009. The Property was used as a PML area beginning in 1953 and operation ended in 1994, when Oahu Sugar closed down. The Property has not been operated and has not been used since the closure of Oahu Sugar. The Property is presently surrounded by a chain-link fence with a locked gate and warning signs posted. The inside of the Property consists of; a) a large abandoned building, that was formerly used as an office and storage area for various pesticides; b) four elevated metal storage tanks suggesting that the compounds were mixed with water and delivered to trucks that apply the mixed pesticides in the fields; c) a smaller building referred to as a "boiler house" that was used to mix pentachlorophenol (PCP) with diesel oil. This process was enhanced by heat from an external boiler also powered by diesel fuel. The mixture of oil and PCP was used as pesticide before the introduction of other pesticides in the 1960s.

## 6. Background Facts

- a. DHHL acquired the Property and surrounding lands in February 2009 with the intent to remediate and redevelop it. The Site is part of the larger 375-acre proposed master planned community, *East Kapolei II*, which DHHL wishes to develop to provide much needed affordable homes for its target population of native Hawaiian families. The *East Kapolei II* master plan includes two schools, a 100,000 square foot (sq-ft) regional community center, approximately 1,000 single-family homes and 1,000 affordable multi-family rental units, many of which could be affected by hazardous materials present.
- b. The *East Kapolei II* development is an important part of the larger regional transformation of the Ewa Plain from agricultural use to the City of Kapolei, which has long been designated by the City and County of Honolulu as the secondary urban center for the island of Oahu. The development plans for East Kapolei include the construction of the University of Hawai'i West Oahu Campus, which will be located north of the PML, a regional shopping center, and up to 15,000 residential units on the surrounding 1,600 acres.
- c. The Property was used as a pesticide mixing plant since the early days of sugarcane production in Hawai'i. Pesticides used in sugarcane production include, atrazine, ametryn, DDT, DDE, DDD, diuron, glyphosate, dalapon, Trifluralin, and 2,4,D and pentachlorophenol. Sodium arsenite was also used as a herbicide in the 1930's. These pesticides were stored, mixed with water and loaded to trucks that applied the mixtures to the surrounding agricultural fields. A mixture of oil and Pentachlorophenol

(PCP) was also used in the field as a pesticide. Soil became contaminated as a result of chemical spills, mixture runoff, and rinse water discharge during pesticide mixing and loading. Dioxins and furans are generally present as a contaminant in pesticides and were also identified as contaminants in other pesticide mixing plants.

- d. A number of investigations and characterization activities have occurred at the Property and immediately surrounding lands over the years, which establish a substantial administrative record for the Property and the surrounding lands.
- e. As early as 1989, the Property and the surrounding lands were part of a larger study that was conducted by the Department of Agriculture to monitor pesticides residues in soil in all former pesticides mixing and loading areas in the whole State of Hawai'i. Atrazine, ametryn, diuron, hexazinone, and terbacil were detected in former mixing and loading areas for sugar plantation.
- f. In 1990, the University of Hawai'i and Department of Agriculture conducted a study of selected pesticides facilities and identified the Property to be contaminated with pesticides. Ametryn, atrazine and DDT concentrations in the soil exceeded the current DOH Tier I Environmental Action Levels (EALs). DDT, DDE, and DDD were detected in soil at decreasing concentrations with depth. Diuron, terbacil, and hexazinone were also detected in soil. Soil samples collected indicated elevated levels of ametryn as high as 17, 664 micrograms per kilogram (mg/kg) or parts per million (ppm). Soil levels for ametryn and other pesticide compounds exceed their respective current DOH Environmental Action Levels (EALs) for residential soil.
- g. In 1992, DOH conducted a preliminary assessment of the Property that included a document review, personal interviews and a site visit and identified various additional herbicides that were used in sugarcane productions.
- h. In 1997 and 1999, DOH and The U.S. Environmental Protection Agency ("EPA") conducted limited surface soil sampling at the Property. Arsenic, PCP and dioxins/furans were detected above EPA Region 9 Remediation Goals (PRG). The highest Total toxicity equivalent (TEQ) of dioxin/furans as Tetrachlorodibenzo-p-dioxin (TCDD) found in soil was 752 micrograms per kilogram ( $\mu\text{g/kg}$ ) or parts per billion ("ppb"), exceeding the EPA Soil Residential Preliminary Remediation Goal of  $0.0039 \mu\text{g/kg}$  in effect at the time of the study. The level also exceeds the current DOH Soil EAL and EPA Soil Remediation Limit (RSL) of  $0.0045 \mu\text{g/kg}$  for

residential land use, and the EPA Office of Solid Waste and Emergency Response (“OSWER”) Directive level of 1 µg/kg.

- i. In 2000, The EPA Response Engineering and Analytical Contract (REAC) collected surface and subsurface soil (up to 4 ft) around the Property. Laboratory analytical results indicated elevated levels of dioxin/furans, arsenic, pentachlorophenol, dieldrin, diuron, atrazine, ametryn, trifluralin, terbacil, hexazinone, and DDT. The highest values of contaminants were found in soil samples taken from behind the “boiler house” which appears to be the sink for drainage from beneath the other buildings and elevated tanks. The highest TEQ of dioxin/furans found in soil in this study was 334 µg/kg. Total dioxin/furan concentrations in soil decreased with depth but were still above the EPA OSWER Directive at a depth of 4 feet below ground surface.
- j. In 2001, as a result of the DOH and EPA findings, a letter was sent out to DLNR requesting for immediate action to mitigate soil exposure. In response to the letter, DLNR installed an additional fence and repaired the existing fence. DLNR also applied soil cement at the Site for dust and erosion control.
- k. In 2004, AMEC Earth and Environmental (“AMEC”) conducted a Phase I Environmental Site Assessment for the DOH. The Phase I was conducted in compliance with ASTM E1527-00. AMEC recommended collecting soil samples outside of the fenced area to determine the lateral extent of contamination.
- l. In 2007, Tetra Tech EM Inc. conducted a site assessment for the DOH for the 404-acres of agricultural land surrounding the PML. The purpose of the investigation was to collect sufficient information to determine if the area is suitable for future residential development. A total of 59 surface soil multi-increment samples were collected for analyses. Laboratory analytical results indicated levels of contaminants of concern below their respective EALs. The area surrounding the Property was given a No Further Action Determination in January 2008.
- m. In 2007, EnviroServices conducted further site characterization under a Brownfields Grant from the USEPA through the Hawai’i Department of Business Economic Development and Tourism (“DBEDT”) and in cooperation with the DOH. Laboratory results indicated three discrete soil samples collected from inside of the fenced area contained dioxin/furan concentrations above 390 nanogram/kg (ng/kg). Three multi-incremental samples from the first ring of decision units located outside of the Property (approximately 50-ft from the fenced area) contained dioxin/furan concentration above the 390 ng/kg screening criteria. Results of the

laboratory analysis of soil samples collected from the second ring (50-ft away from the first ring) indicated elevated levels of dioxin/furan in one multi-incremental sample above the 390 ng/kg. EnviroServices prepared a Preliminary Remedial Alternatives Analysis to identify potential corrective actions to address current and future exposure risks associated with the Site.

- n. The DOH has taken no response or enforcement actions at the Site under the ERL.

## **7. Consistency with the SCP**

Both DOH and DHHL enter into this voluntary ARA for ongoing investigation and remedial activities at the Site. The ARA is the mechanism that will ensure that final characterization and remediation will be conducted in compliance with the SCP.

## **8. Work to be Performed**

- a. DHHL agrees to perform the tasks and, unless waived by DOH, to perform the tasks and submit reports identified in the SOW (included in Attachment A). All work shall be conducted in accordance with the SOW, the ERL, the SCP, and the DOH's guidance. Upon request by DHHL or on its own initiative, the DOH has the right to waive specific deliverable requirements if it determines that a particular deliverable is unnecessary or is sufficiently satisfied by other deliverables or completed work.
- b. All response work performed pursuant to this voluntary ARA shall be under the direction and supervision of DHHL or an authorized representative, who shall be a qualified professional engineer, geologist, or environmental scientist with experience and expertise in environmental investigation and remediation. The DOH will make technical support available for these duties from an individual meeting the technical requirements. The technical support will be made available to DHHL through an Interagency Personnel Agreement. DHHL shall provide the DOH in writing the name, title, and qualifications of any engineer or geologist and of any contractors and subcontractors to be used in carrying out the terms of this voluntary ARA.
- c. All documents, plans, reports, approvals, disapprovals, and other correspondence to be submitted pursuant to this voluntary ARA shall be sent to the addressees set forth in Section 9 or to such other addressees as the parties hereafter may designate in writing, and shall be deemed submitted on the date received by the DOH or DHHL.

## **9. Key Contacts**

The following persons are designated by the Parties to receive all notices and correspondence regarding this voluntary ARA:

### For the DOH:

Bruce Tsutsui  
Office of Hazard Evaluation and Emergency Response  
Hawai'i Department of Health  
919 Ala Moana Blvd, Room 206  
Honolulu, Hawai'i 96814  
Phone: (808) 586-4249  
Fax: (808) 586-7537

### For DHHL:

Darrell Ing  
Department of Hawaiian Home Lands  
P.O. Box 1879  
Honolulu, Hawai'i 96805  
Phone: (808) 620-9276  
Fax: (808) 620-9299

If either party decides to change its designated contact person or if any contact information changes, the party shall give written notice of such changes as set forth in this section.

## **10. Sampling, Access, and Data / Document Availability**

- a. DHHL shall provide the DOH with all information regarding hazardous substance contamination at, or released from, the Site, including but not limited to:
  - i. The results and Quality Assurance/Quality Control (QA/QC) documentation of all sampling and/or testing results or other technical data generated by DHHL or on DHHL's behalf with regard to soil, ground water, surface water, air contamination or other relevant/related environmental data at the Site;
  - ii. Previous studies or reports regarding environmental investigative and remedial activities at the Site;
  - iii. Written communications between DHHL and local, state, or federal regulatory authorities; and



- iv. Permits from local, state, or federal regulatory authorities regarding hazardous substances use or contamination at the Site.
- b. When requested by the DOH, DHHL shall provide split or duplicate samples collected by DHHL as part of the SOW to the DOH or its authorized representatives. DHHL shall notify the DOH of any planned sample collection activity;
- c. While conducting sample collection and analysis activities required by this voluntary ARA, DHHL shall use quality assurance, quality control, and chain of custody procedures described in applicable EPA guidance, such as the *Guidance for Quality Assurance Project Plans*, December 2002, EPA QA/G-5, and the HEER Technical Guidance Manual, as well as the site-specific *Quality Assurance Project Plan* that will be subject to DOH approval. DHHL shall consult with the DOH in planning for and prior to all sampling and analysis as detailed in the SOW. To provide quality assurance and maintain quality control, DHHL shall:
  - i. Use a laboratory that has a documented Quality Assurance Program that complies with EPA QA/G-5;
  - ii. Require the laboratory used by DHHL for analysis to perform according to a method or methods deemed satisfactory by the DOH and to provide sampling plans as required in the SOW; and
  - iii. Cooperate with the DOH whenever DOH personnel or DOH-authorized representatives seek access to the laboratory and personnel utilized by DHHL for analysis.
- d. DHHL shall permit the DOH or its authorized representatives, upon reasonable prior notice, to have reasonable access at all times to the Site to monitor any activity conducted pursuant to the SOW or to conduct such tests or investigations as the DOH deems necessary.
- e. DHHL shall permit the DOH or its authorized representatives to inspect and copy all records, documents, and other writings, including all sampling and monitoring data, that in any way concern soil, ground water, surface water, air contamination, or other relevant/related environmental data at the Site, and which are not privileged or otherwise protected from disclosure by law. Nothing in this voluntary ARA shall be interpreted as limiting the DOH's inspection authority under state law.
- f. If at any time during the response process DHHL becomes aware of the need for additional data beyond the SOW, DHHL shall submit to the DOH within 30 days a memorandum documenting the need for additional data.

- g. If the DOH becomes aware of the need for additional data beyond that called for by the SOW, it shall inform DHHL in writing of the data it believes necessary. The DOH and DHHL shall discuss the appropriate method and schedule for obtaining and reporting the requested data.
- h. To the extent that DOH requires access to land other than land owned by DHHL, DHHL shall use its best efforts to obtain access agreements from the present owners or lessees within 60 days from the date the DOH deems access necessary. Such agreements executed after the effective date of this voluntary ARA shall provide for reasonable access for the DOH, its contractors and oversight officials, and DHHL or its authorized representatives. In the event that DHHL is not able to obtain site access to property owned or controlled by persons or entities other than DHHL, DHHL shall notify the DOH promptly regarding both the lack of, and the efforts to obtain, such access.
- i. DHHL shall consummate no conveyance of its interest in the Property or Site without a provision permitting the uninterrupted implementation of the provisions of this voluntary ARA.

## **11. Roles and Responsibilities**

- a. The DOH will review all documents, written submittals and requests for changes in the SOW or related requests sent by DHHL within 30 days from the date of receipt. Within that time, DOH will provide the DHHL representative with written comments by letter or email, or a letter stating that the submittal is acceptable. If more time is needed, the DOH will notify the DHHL representative in writing of the need for additional time, the date by which the review will be completed, and the reason why the normal review period is being extended. When DOH has so extended the time for review of submittals, DHHL shall be given a correlating extension of time for tasks, which are affected by the DOH delay in review. While the DOH may provide informal advice, guidance, or comments, all approvals and decisions must be conveyed in writing by the DOH to be official.
- b. DHHL agrees to perform and submit all work in accordance with the requirements and overall time limit set forth in the SOW and any revisions thereto requested by the DOH. If any changes become necessary, DHHL will notify the DOH in writing describing the change needed. Changes to the statement of work are to be agreed upon in writing by both parties prior to any change in the work becoming effective. However, verbal agreements for changes are acceptable when necessary and may be relied upon, provided they are followed up in writing by the party who initiated the change within ten business days of verbal approval. Requests for

extensions of time should be made in advance of the date on which the activity or document is due and should include a justification for the delay. All changes acknowledged and approved in writing shall be incorporated into this voluntary ARA.

**12. Failure to Comply with the SOW**

- a. DHHL shall conduct the Work in accordance with the technical requirements and overall time in the SOW attached to this voluntary ARA.
- b. DHHL, or its contractor, may request an extension of a deliverable deadline. In making such a request, DHHL or its contractor shall, prior to the deadline and within 20 days of becoming aware of a possible delay, notify the DOH in writing of the possible delay, document the reason for the possible delay, and submit a proposed revised deadline. The DOH anticipates granting extensions for reasonable requests received in accordance with the requirements of this paragraph. However, granting an extension is at the sole discretion of the DOH.

**13. Payment of Oversight Costs**

- a. The DOH, no more frequently than quarterly, shall submit to DHHL documentation for all costs properly incurred by the DOH with respect to this voluntary ARA ("Cost Bill"). The DOH and DHHL agree that DHHL shall reimburse the DOH for billed oversight costs relating to the remediation of the Site. The Cost Bill should include a reasonable description and any supporting documentation necessary to inform DHHL as to what oversight costs are being charged. If DHHL does not have any questions or concerns regarding the Cost Bill, DHHL, or its authorized consultant or contractor, shall, within 60 calendar days of the receipt of each Cost Bill, remit a check for the amount of those costs made payable to the "State of Hawai'i, Department of Health."
- b. Checks should specifically reference the identity of the Site and be addressed to:  
  
Office of Hazard Evaluation and Emergency Response  
Hawai'i State Department of Health  
ATTN: Site Discovery, Assessment, and Remediation Section  
919 Ala Moana Boulevard, Room 206  
Honolulu, Hawai'i 96814
- c. If there are any questions that arise regarding the Cost Bill, DHHL, or its authorized consultant or contractor, shall submit, in writing and within 15

calendar days of receipt of the Cost Bill, a list of its questions and concerns in a letter to the DOH's representative identified in paragraph 9 herein. The DOH shall respond within 15 calendar days of the receipt of this letter and will attempt, in good faith, to address its concerns. DHHL and the DOH shall, in good faith, resolve any differences that arise regarding the Cost Bill. If the dispute cannot be resolved within 45 days of DHHL's receipt of the Cost Bill, then the procedure set forth in Section 17 for the resolution of disputes shall be followed. The 45-day deadline in which DHHL must remit a check to DOH shall be tolled until the dispute is resolved.

- d. As used in this section of the voluntary ARA and defined in Section 4(c), "oversight costs" shall mean all costs consistent with the SCP incurred by the DOH or its contractor in overseeing, reviewing, and assessing the adequacy of the work performed pursuant to this voluntary ARA, including but not limited to the costs of reviewing or developing plans and reports.
- e. The DOH reserves the right to bring an action against DHHL pursuant to Chapter 128-D, HRS for unpaid oversight costs. This cost recovery authority is provided under Section 128D-37.

#### **14. Satisfactory Completion and "No Further Action" Letter**

- a. Within 30 days of satisfactory completion of each task specified in the SOW as reasonably determined by the DOH, the DOH will issue a letter confirming satisfactory completion of that task.
- b. Within 30 days of satisfactory completion of the work described in the SOW as reasonably determined by the DOH, the Director of the DOH will issue to DHHL a "No Further Action" letter ("NFA") in accordance with Chapter 128D of the HRS, the SCP, and this voluntary ARA. The NFA may include, but is not limited to, Site use restrictions, engineering controls, and institutional controls.

#### **15. Reservation of Rights**

Notwithstanding compliance with the terms of this voluntary ARA, DHHL is not released from liability, if any, for any actions beyond the terms of this voluntary ARA taken by the DOH respecting the Site. The DOH reserves the right to take any enforcement action pursuant to the ERL and/or any other legal authority, including the right to seek injunctive relief, monetary penalties, and punitive damages for any violation of law or of this voluntary ARA. In the event that DHHL does not complete the tasks specified in the SOW in accordance with the schedule therein, as may be amended by the DOH pursuant to Section 11, or does not timely pay the DOH for its billed oversight costs, the DOH

reserves the right to take action consistent with Chapter 128D, HRS, against DHHL, and to exercise rights the Director may have pursuant to any law including recovering costs and taking enforcement actions.

The DOH expressly reserves all rights and defenses that it may have, including the DOH's right both to disapprove of work performed by DHHL and to request that DHHL perform tasks in addition to those detailed in the SOW, as provided in this voluntary ARA. The DOH reserves the right to undertake whatever response actions are permitted by law at any time. The DOH reserves the right to seek reimbursement from DHHL for such costs incurred by the State of Hawai'i in accordance with applicable laws.

#### **16. Other Applicable Laws**

DHHL shall undertake all actions required by this voluntary ARA in accordance with the requirements of all applicable local, state, and federal laws and regulations.

#### **17. Dispute Resolution**

DHHL and the DOH agree to notify one another as soon as possible if a material disagreement regarding this voluntary ARA becomes apparent to them. If this occurs, the party that identifies any such disagreement shall notify the representative of the other party specified in Section 9. Initial notification will be by phone or in person, at which time the Parties will attempt to resolve this disagreement. If the disagreement is successfully resolved, the situation will require no further action. If the disagreement continues, it will be discussed between the Manager of the HEER Office and the Administrator of DHHL's Land Development Division. If the situation is still not resolved, it will be described in writing and presented to the Deputy Director for Environmental Health, Hawai'i Department of Health. The Deputy Director or their designated representative will gather whatever additional information he/she feels is necessary and will render a decision in writing regarding the disagreement. If the decision is satisfactory, the Parties will abide by the decision and no further action is necessary. If it is not satisfactory, DHHL or the DOH may terminate this voluntary ARA and no party shall have any further obligation under this voluntary ARA.

#### **18. Effective Date and Subsequent Modification**

- a. This voluntary ARA is effective on the date signed by the DOH and DHHL.
- b. No informal advice, guidance, suggestions, or comments by the DOH regarding reports, plans, specifications, schedules, and any other writing submitted by DHHL shall be construed as relieving DHHL of its obligation to obtain such formal approval as may be required by this voluntary ARA.

- c. Any deliverables, plans, technical memoranda, reports, specifications, schedules, and attachments required by this voluntary ARA are, upon approval by the DOH, incorporated into this voluntary ARA.
- d. Either party may terminate this voluntary ARA in accordance with the provisions contained herein. DHHL may choose to terminate the voluntary ARA at any time upon written notice to DOH. The DOH may terminate the voluntary ARA when:
  - i. There is an imminent and substantial threat to public health, the environment, or natural resources;
  - ii. DHHL fails in good faith to comply with the terms of this voluntary ARA and fails to commence such activities to cure such noncompliance within 30 days after the DOH issues to DHHL a written notice of noncompliance;
  - iii. Additional information is brought to the attention of the DOH which renders the response action inadequate; or
  - iv. Materially new information not available as of the effective date of this voluntary ARA becomes available that necessitates a significant change in the SOW.

The party initiating termination of this voluntary ARA shall immediately provide written notice to the other party of its intention to terminate the voluntary ARA and the date upon which termination will be effective. Upon termination of this voluntary ARA, the DOH may pursue any action related to the Site within its authority.

- e. This voluntary ARA may be amended in writing by mutual agreement of the DOH and DHHL. Such amendment shall be effective upon the date the change is signed by both parties and shall be deemed incorporated into this voluntary ARA.
- f. With prior written approval of the DOH, which shall not be unreasonably withheld, all rights and benefits conferred upon Respondents under this voluntary ARA may be assigned or transferred to any person. DHHL shall notify the DOH in writing of its intention to transfer its rights and benefits. Upon receiving the Director's approval, the transferee will be bound by all the terms and conditions of this voluntary ARA.

**19. No Admission of Liability**

DHHL enters into this voluntary ARA voluntarily as agreed with DOH. This ARA and any action taken to comply with the terms hereof are not, and shall not be deemed to be, admissions of fault, liability, violation or wrongdoing by DHHL, and shall not be interpreted or construed as admissions of liability under, or violation of, any federal, state or local law or regulation, or as admissions of fact or evidence of such.

**20. Counterparts**

This voluntary ARA may be executed and delivered in any number of parts, each of which shall be deemed to be an original and together constitute one and the same document.

**21. No Third Party Beneficiaries**

This voluntary ARA is solely for the benefit of the Parties and does not create any rights in or obligations on any third parties except as specifically stated in this voluntary ARA.

**22. Governing Law**

This voluntary ARA shall be construed in accordance with, and governed by, the laws of the State of Hawai'i.

**23. Actions Against Other Parties**

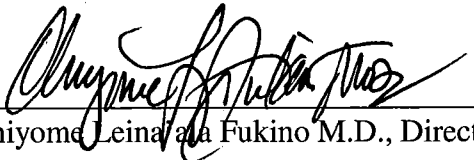
The Parties to this voluntary ARA retain their rights against third parties. This voluntary ARA does not waive or otherwise affect any rights and remedies that DHHL may have against any contractor or consultant performing activities required by this voluntary ARA.

**24. Approvals**

The undersigned hereby agree to the terms and conditions set forth above and to all attachments incorporated into this voluntary ARA.

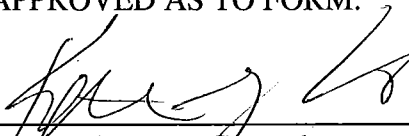
IT IS SO AGREED:

STATE OF HAWAII  
DEPARTMENT OF HEALTH

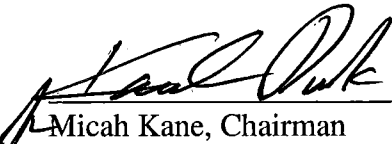
By:   
Chiyome Leinani Fukino M.D., Director

Date: JUN 23 2009

APPROVED AS TO FORM:

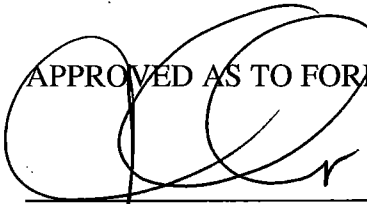
  
Deputy Attorney General

STATE OF HAWAII  
DEPARTMENT OF HAWAIIAN HOME LANDS

By:   
Micah Kane, Chairman

Date: JUN 10 2009

APPROVED AS TO FORM:

  
Deputy Attorney General



Agreement for Remedial Action  
East Kapolei Former Pesticide Mixing and Loading Site  
Attachment A: *Scope of Work*  
May 27, 2009  
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## Introduction

This scope of work (SOW) is part of an Agreement for Remedial Action (ARA) between the Hawai'i State Department of Hawaiian Home Lands (DHHL) and the Hawai'i State Department of Health (DOH) to address environmental impacts as a result of documented pesticide mixing and handling at a former sugar mill site located in Kapolei, O'ahu, Hawai'i. Site remediation is the ultimate responsibility of DHHL, however, this SOW assumes that DHHL will hire a qualified contractor to perform the SOW tasks and subsequent references to "The contractor" assumes DHHL and its selected contractor unless specifically indicated. The location of the site is illustrated in Attachment Figure 1.

The overall objective of the ARA and the associated SOW is to ensure that investigation and remediation is performed at the subject Site, and that upon completion of the SOW activities, the Site is suitable for the land use intended by DHHL, and that the SOW activities are performed in accordance with the Hawai'i State Contingency Plan (Hawai'i SCP) and associated regulatory requirements and guidelines.

Background information on the site, including previous investigations are presented in Section 2 of this SOW. The SOW consists of the following tasks:

- Issue Notice To Proceed
- Conduct Initial Community Involvement
- Prepare Health and Safety Plan
- Prepare Hazardous Materials Confirmation Sampling, Analysis, and Profile
- Prepare Site Demolition and Hazardous Materials Disposal Plan
- Prepare Substructure Soil Sampling Workplan
- Conduct Demolition and Hazardous Material Disposal
- Conduct Substructure Soil Sampling and Analysis
- Perform Environmental Hazard Evaluation and Remedial Alternatives Analysis
- Prepare Draft Remedial Action Memorandum
- Continue Community Involvement
- Finalize Remedial Action Memorandum
- Prepare Remedial Response Work Plan
- Prepare Remedial Action Bid Package and Award Remedial Contract
- Issue Notice To Proceed for Remediation
- Perform Site Remediation
- Prepare Confirmation Sampling Plan
- Perform Confirmation Sampling and Analysis
- Perform Site Restoration
- Prepare Remediation Verification Report

More complete task descriptions are included in Section 3 of this SOW.

Required sampling, plans, reports, and submittals shall be prepared by the contractor in accordance with applicable Hawai'i State requirements, in particular those in the Hawai'i State SCP - Hawai'i Administrative Rules (HAR), Title 11, Chapter 451 (HAR, 1995) and Chapter 128D of the Hawai'i Revised Statutes (HRS). Project tasks shall also be planned and conducted in accordance with DOH Technical Guidance Manual (TGM) (DOH 2008a) and regulatory oversight by the DOH.

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The contractor shall also comply with environmental cleanup responsibilities related to the U.S. Environmental Protection Agency (EPA) Revolving Loan Fund (RLF) program (EPA 2009). The Hawai'i State Department of Business and Economic Development and Tourism (DBEDT) is funding cleanup at the Site through the RLF. In particular the contractor shall comply with community relations plan requirements described in Chapter 6 of the EPA Brownfields Revolving Loan Fund Manual (EPA 2004). The contractor shall assume that EPA, DOH, DHHL, and DBEDT will review and comment on all documents or deliverables including schedules and cost estimates.

Web links to the compliance requirements for demolition and cleanup activities are found in the last section of this SOW, Section 4, *References*.

## **1. Site Background**

### *Introduction*

The specific site of concern (hereafter referred to in this SOW as the "Site" unless specifically indicated otherwise) was formerly used by the Ewa Sugar Plantation and Oahu Sugar Company as a pesticide mixing and loading facility. The area surrounding the Site is planned for a DHHL residential housing project on a parcel consisting of approximately 374.515 acres of land. The five main sources of Site-specific information are the following reports:

- Miles, C.J., Yanagihara, K., Ogata, S., Van De Berg, G., and Boesch, R. 1990. *Soil and Water Contamination at Pesticide Mixing and Loading Sites on Oahu, Hawaii*. Conducted by the University of Hawai'i and Hawai'i State Department of Agriculture. Printed in: *Bulletin of Environmental Contamination and Toxicology*. 44:955-962. January 8 (hereafter referred to as "UH 1990").
- U.S. EPA. 2000. *Extent of Contamination, Oahu Sugar Company Site, Ewa, Hawaii, December 2000*. U.S. EPA Work Assignment No. 0-125, Lockheed Martin Work Order No.R1A00125, U.S. EPA Contract No. 68-C9-223 (hereafter referred to as "EPA 2000").
- Hawai'i State DOH. 2000. *Site Inspection – Ewa Sugar Mill/ Oahu Sugar Co. Pesticide Mixing and Loading Site*. EPA Site ID Number HISFN0905536, submitted to EPA Region IX, July 3, 2000 (hereafter referred to as "DOH 2000").
- AMEC Earth and Environmental Inc. 2004 Phase I (hereafter referred to as the "Phase I" or "AMEC 2004").
- Enviroservices and Training Center LLC 2007 Site Investigation and Preliminary Remedial Alternatives Analysis Report (hereafter referred to as the "SI-PRAA" or "Enviroservices 2007").

### *Site Location*

The site of concern is located in western portion of TMK (1)-9-1-017: 09 (formerly listed as (1)-9-1-017: Parcel 088), as illustrated in a TMK Parcel Map, attached as Figure 1 (AMEC 2004). The planned residential lots and the location of the Site within the development are illustrated in Attachment Figure 2. The area surrounding the Site is zoned agricultural and is currently on lease to agricultural tenants primarily Aloun Farms.

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The specific site of primary concern consists of the former agricultural pesticide mixing structures and a portion of adjoining area. The structures include a main wooden building formerly used as an office and for pesticide storage, a smaller wooden building housing a former boiler, and four elevated storage tanks. A fenceline surrounds the former structures. An aerial view of the Site showing the fenceline and the footprint of the structures is illustrated in Attachment Figure 3 and a ground view photograph of the structures is presented as Attachment Figure 4.

The ground elevation at the Site is approximately 100 feet above sea level. Two groundwater aquifers exist beneath the Site, but do not represent potential drinking water sources. The area is largely unpaved and the only areas with solid surface cover are the concrete foundations for the former buildings and storage tank mounts. Scrub trees and brush cover approximately half of the area within the fenceline and the surrounding area is open roadway or flat, unpaved land. Ground cover consists of native soil in areas around the Site, coral and cinder for roadways leading to the Site. Cover within the fenced area of the Site is mostly crushed gravel covering clay.

A system of irrigation ditches is used for irrigation water delivery to the fields currently being cultivated by commercial farmers. A portion of one ditch adjoins the southern boundary of the site as illustrated on Figure 5.

#### *Past Activities*

The EPA 2000 report provides the following summary of site activity:

“The presence of three elevated tanks immediately north of the building suggests that the compounds were mixed with water and delivered to trucks that applied the mixture to surrounding sugar cane fields. A smaller building (“boiler house”), located east of the main building, housed another above ground tank that was used to mix pentachlorophenol (PCP) with diesel oil. The process was apparently enhanced by heat from an external boiler, also powered by diesel fuel. The mixture of oil and PCPs was used for pest and disease control before the introduction of pesticides and herbicides in the 1960s...Sugar cane growing at the site began in 1953 and ended in 1994.”

The EPA 2000 report provides the following summary of early investigations for the site:

“The site was identified as a potential problem in a 1990 study conducted by the University of Hawai’i and the Hawai’i Department of Agriculture. Soil sampling around the mixing tanks during this study identified the presence of pesticides and herbicides. A preliminary assessment of the site was conducted by the Hawai’i State Department of Health in 1992 that included a document review, personal interviews, and a site visit.”

Based on the EPA 2000 report, the Phase I, and the SI-PRAA, the Site-specific contaminants of potential concern (COPCs) in soil and groundwater are pesticides, herbicides, and associated contaminants, primarily:

- Dioxins/furans
- Dieldrin
- Trifluralin

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- Pentachlorophenol and 2,3,4,6-pentachlorophenol
- Arsenic
- Atrazine, ametryn, and simazine
- Diuron

Discrete and multi-incremental soil and groundwater samples were collected at the Site as part of the SI-PRAA. COPCs were either not detected in groundwater samples or were detected below decision screening criteria. Dioxins/furans and arsenic were detected in soil samples above investigation decision screening levels at locations within the fenced area and the roadway area to the southwest outside the fenced area. Attached Figure 5 illustrates the approximate lateral extent of contamination exceeding decision criteria as characterized by the SI-PRAA, along with the estimated depths that elevated concentrations have been detected. As noted previously, the lateral extent includes the area within the north and west fenceline and an area extending beyond the south and east fenceline into the adjoining roadway. The estimated total area contamination exceeding decision criteria is approximately 1.6 acres, based upon the results of the SI-PRAA.

Based on a review of the existing data, the DOH has concluded that the lateral extent of soil contamination was partially delineated by the SI-PRAA. The review also recommended the following:

- Sampling to confirm the vertical extent of contamination at the site, including beneath existing structures.
- An Environmental Hazard Evaluation.

In addition to soil and groundwater COPCs, it is anticipated that other additional hazards exist onsite including (but not limited to) the following potentially hazardous materials associated with the Site structures:

- Asbestos insulation or other potential asbestos containing materials (ACM).
- Lead-based Paint (LBP).
- Polychlorinated biphenyl (PCB) containing-ballasts in light fixtures.
- Pesticide residue in building slabs or footings.
- Creosote on utility poles.
- Pesticide/herbicide/fuel residues remaining in storage tanks, boiler or associated piping.

This SOW includes demolition of the Site structures to remove hazards posed by the hazardous materials and proper disposal of waste generated as a result of the demolition activity.

## **2. Project Tasks**

The following are the project tasks to be performed by the contractor, in anticipated chronological order.

### **2.1. Issue Notice to Proceed**

DHHL shall procure, contract, and issue a Notice to Proceed to their selected contractor.

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2.2. Conduct Initial Community Involvement

The Contractor shall involve the affected Kapolei community in the cleanup process and document the efforts and will prepare a Community Relations Plan (CRP) in compliance with EPA revolving loan fund (RLF) program requirements. These requirements are discussed in Chapter 6 of the RLF Administration Manual. Chapter 6 can be found at the following link: [http://www.epa.gov/brownfields/pubs/ch06\\_rlf.pdf](http://www.epa.gov/brownfields/pubs/ch06_rlf.pdf). The contractor shall assume one round of review and subsequent revision of the plan after comment by the EPA and other stakeholders (e.g., DHHL, DBEDT).

As part of the initial implementation of the CRP, the contractor shall perform the following:

- Assist DHHL in establishing a local information repository (e.g., public library) and an administrative record for the entire effort. The contractor shall assume that the administrative record will include records of all activity for the cleanup, to include but not be limited to, meeting minutes, project plans, public input, project reports and other deliverables. The contractor shall also assume that the administrative record shall be maintained in both hard copy and electronic versions.
- Formulate a database of key contacts for potential concerned individuals or groups in the surrounding community (e.g., Kapolei neighborhood board).
- Issue a public notice to the surrounding community of the planned investigation and cleanup at the site.

Subsequent required activities to involve the community are described in Task 3.12.

2.3. Prepare Health and Safety Plan

The Contractor shall prepare a Site-specific Health and Safety Plan (HASP) to cover all field activities under the following tasks 3.4 through 3.8, 3.14, and 3.18 through 3.21. There may be one overall HASP but it should cover all field activity tasks and update addendums will be issued as necessary. The HASP and addendums will be based on the documented Site conditions and COPCs and will comply with all applicable requirements under the Occupational Safety and Health Administration, National Institute for Occupational Safety and Health and the Hawai'i State Occupational Safety and Health Division.

2.4. Prepare Hazardous Materials Confirmation Sampling, Analysis, and Profile

The Contractor shall verify the presence of potentially hazardous materials observed onsite, including the materials making up any of the structures to be demolished. Materials sampled and profiled under this task shall not include soil. Soil requiring confirmation will be handled under subsequent Task 3.7. The Contractor shall conduct sampling and analysis of potentially hazardous building materials under pertinent RCRA or AHERA requirements to confirm identification of hazardous materials including toxicity characteristic leaching procedure analyses of different material types.

2.5. Prepare Site Demolition Plan and Hazardous Materials Disposal Plan

The Contractor will use the results of the Task 3.4 to prepare a Demolition and Hazardous Materials Disposal plan. The plan shall include (but will not be limited to):

- Methods for demolition, including associated activities such as cleaning of any remnant tank, boiler or piping contents.

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- Estimated volumes, weights, and locations of identified hazardous materials, including assumptions made for the estimations. In addition to the potentially hazardous onsite materials, the estimations will include estimations of volumes of fluids generated from cleaning tanks, boiler, or piping and investigation-derived waste generated as a result of field activities.
- Procedures for managing and segregating different waste categories during demolition to minimize mixing of hazardous and non-hazardous materials.
- Methods for disposal of different waste categories, including proper waste documentation, needed transport manifests, and identified waste disposal facilities.
- Plans for preparing Site for demolition and securing the Site after-hours or during downtime.
- Plans for selection and oversight of any part of the task to be subcontracted, including subcontractor SOWs.
- Estimated demolition and disposal fieldwork schedule and assumptions.

The Demolition/Disposal Plan will be prepared concurrently with the Soil Sampling Workplan (Task 3.6).

#### 2.6. Prepare Substructure Soil Sampling Workplan

Soil sampling to verify volume of soil requiring remediation and lateral extent to the south (if necessary) will be performed subsequent to demolition activities. The depth of contamination beneath building foundations, storage tank foundations, a small settling pond and a portion of the roadway area need to be confirmed. The Contractor will prepare the following planning documents that will be followed in conducting the verification sampling:

- Sampling and Analysis Plan
- Quality Assurance Project Plan
- HASP Addendum (if needed based on information gathered during demolition)

The planning documents shall document (but will not be limited to) the following:

- Data Quality Objectives.
- Soil sampling strategy and sample collection methods chosen to fulfill DQO questions (i.e. *multi incremental* or discrete soil sampling).
- Site maps showing former layout of building footprints, storage tanks, boiler, piping and sample locations and depths.
- Sample analysis methods and Quality Assurance/Quality Control procedures.
- Plans for selection and oversight of any part of the task to be subcontracted, including subcontractor SOWs.
- Estimated field schedule.

The draft version of the planning documents shall be submitted to DHHL for review concurrent with the Draft Demolition and Disposal Report (task 3.5).

#### 2.7. Conduct Demolition and Hazardous Material Disposal

The Contractor shall perform Site demolition and associated waste and hazardous material disposal according to the plan produced as a result of task 3.5. Generated waste from former structures will be managed or disposed of and the Site cleared.

The contractor shall provide plans for oversight of work if the task is to be subcontracted.

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The contractor shall be responsible for obtaining all required permits, licenses, etc. for the removal, hauling, and disposal of the hazardous material.

In addition, the Contractor will prepare a Demolition and Disposal Report, which will document (but not be limited to) the following:

- Site activities (including photo documentation and logs).
- Final volumes, weights, and dispositions of hazardous materials generated.
- Plans for selection and oversight of any part of the task to be subcontracted, including subcontractor SOWs.
- All pertinent finalized and signed documentation and manifests.

2.8. Conduct Soil Sampling and Analysis

The contractor shall complete soil sampling according to workplan (task 3.6), immediately after demolition (task 3.7).

2.9. Perform Environmental Hazard Evaluation

Once soil sample analysis results are available, the Contractor shall integrate data with previous Site data to prepare a Site-specific Environmental Hazard Evaluation (EHE) to provide an organized framework for documenting current and potential hazards represented by conditions at the Site. The EHE will be prepared utilizing DOH Environmental Action Levels (DOH 2008b) according to DOH guidelines for Site hazard evaluation (DOH 2008c).

2.10. Remedial Alternatives Analysis

After integrating all Site characterization data and developing the EHE, the Contractor shall perform a Remedial Alternatives Analysis (RAA) to revise the existing preliminary remedial alternatives developed as part of the SI-PRAA. The Contractor shall also evaluate all alternatives (one of which is a “no action” strategy) in an RAA report. Typically, final RAA reports will evaluate 5 or more different remedial alternative strategies for a site with at least 3 of the strategies judged most appropriate then presented and compared in detail in the RAA report. Primary considerations in weighing the strengths and weaknesses of remedial alternatives include:

- Effectiveness
- Technological and administrative feasibility
- Cost

In addition, compliance with regulatory requirements for management and disposal of dioxin-contaminated soil shall be considered. Based on these considerations, a preferred remedial alternative will be identified for the Site and the rationale for selection will be documented in the RAA Report.

2.11. Prepare Draft Remedial Action Memorandum

The Contractor will prepare a Draft Remedial Action Memorandum (RAM) intended for review and public comment. The RAM shall consist of a concise summary of site investigation efforts and results, the results of the EHE, the RAA, and the preliminary remedial alternative selected for the site in the RAA.

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The initial draft of the RAM will be submitted to DHHL for review no later than 7 calendar days after submittal of the RAA. The Contractor will also prepare the fact sheet for Community Involvement (Task 3.12) concurrently with the initial draft of the RAM. The contractor shall revise the initial draft RAM and the fact sheet within 7 calendar days of submittal based on review comments from DOH and DHHL. The Contractor will publish a public notice regarding availability of the revised Draft RAM for review under a minimum 30-day comment period as required under the Hawai'i SCP. The public notice shall be published in at least one of the two major daily Hawai'i newspapers.

2.12. Continue Community Involvement

The Contractor will conduct a public meeting to be held approximately two weeks after public notice to encourage review and comment on the Draft RAM as part of the community involvement. The actions for the public meeting will involve (but not be limited to) the following:

- Prepare a one to two page fact sheet based on the RAM for public distribution.
- Make logistic arrangements for and schedule the public meeting.
- Identify and contact key stakeholders in the community (e.g., Kapolei neighborhood board) and inform them of the RAM and public meeting by email and by regular mail.
- Record written comment from public concerning the RAM, selected remedy, and remedial activities.

2.13. Finalize RAM

After all public input to the RAM has been completed after the 30-day review period; the Contractor shall coordinate with DHHL and DOH on any needed revisions to the RAA and RAM to respond to received public comments. Any changes will be incorporated into a final version of the RAM, including a specific Response Summary section. The Contractor shall finalize the RAM within 7 calendar days after receipt of all public comments.

After producing the Final RAM, the Contractor shall send out a second public notice regarding availability of the Final RAM for review.

2.14. Prepare Remedial Response Work Plan

The Contractor will use the requirements of the Final RAM and associated changes needed to the RAM to prepare a Remedial Response Work Plan. The plan will be prepared to ensure proper execution of the selected Site Remedy and will be reviewed by DHHL and DOH. The plan shall include (but will not be limited to):

- Any needed revisions to HASP.
- A specific Quality Assurance Project Plan and Sampling Analysis Plan to provide requirements to evaluate successful implementation of remedy.
- Plans for selection and oversight of any part of the task to be subcontracted including subcontractor SOWs.
- Methods for remedial action, including needed heavy equipment, standard procedures, and field personnel roles.
- Methods for remediation, and if involved in the remedy, capping, soil cover, paving.
- Estimated volumes, weights, and locations of potentially hazardous materials generated if remedy includes excavation and removal, including assumptions made for the estimations.



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- Procedures for managing and segregating different waste categories if generated, to minimize mixing of hazardous and non-hazardous materials.
- Methods for disposal of different waste categories (if generated), including proper waste documentation, needed transport manifests, and identified waste disposal facilities.
- Site restoration – repaving or landscaping, as required.
- Estimated remedial activity fieldwork schedule.

2.15. Prepare Construction Bid Package

The Contractor will provide the following service during the Invitation for Bid (IFB) period including but not limited to the following:

- Assemble IFB package, including drawings and specifications.
- Attend and record minutes for the pre-bid meeting. Coordinate and distribute minutes to attendees and plan holders listed on the bid register.
- Provide quantity and cost estimates, clarification, and responses to requests for information and addenda to the IFB and construction documents.
- Provide 20 copies of the IFB package on CD.

2.16. Select Remediation Contractor, Award and Execute Remedial Contract

DHHL shall screen bids, select a qualified Remediation Contractor, and execute remedial contract.

2.17. Issue Notice To Proceed for Remediation

DHHL shall procure, contract, and issue a Notice to Proceed to their selected Remediation Contractor.

2.18. Perform Site Remediation

The Remediation Contractor shall perform the Selected Remedy according to the Finalized Remedial Work Plan and the executed remedial contract.

2.19. Prepare Confirmation Sampling Plan

The Contractor shall prepare a Confirmation Sampling Plan. The plan is prepared to provide strategy and methods for evaluating success Selected Remedy implementation and will be reviewed by DHHL and DOH. The plan shall include (but will not be limited to):

- Any needed revisions to HASP.
- A specific Quality Assurance Project Plan and Sampling Analysis Plan to provide requirements for confirmation sampling and analysis.
- Plans for selection and oversight of any part of the task, including subcontractor SOWs.
- Confirmation sampling strategy and methods
- Confirmation analysis methods
- Methods, equipment, and supplies needed.

2.20. Perform Confirmation Sampling and Analysis

Contractor will perform confirmation sampling according to Final Confirmation Sampling Plan.

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2.21. Perform Site Restoration

Remediation Contractor will perform Site Restoration according to Final Remedial Response Work Plan

2.22. Prepare Remediation Verification Report

After remediation activities are complete and confirmation soil sample analyses are available and successful implementation of Selected Remedy is verified, the Contractor shall prepare a Remediation Verification Report (RVR) to document the results to be reviewed by DHHL and DOH. The RVR shall include but not be limited to:

- Description of Site activities (including maps, figures, photo documentation, boring logs, soil logs).
- Deviations from Remedial Response Work Plan.
- Remedial Methods used.
- Final area and volumes of hazardous materials remediated.
- Methods used for disposal of different waste categories (if generated), including proper waste documentation, needed transport manifests, and identified waste disposal facilities.
- Site restoration performed.
- All pertinent finalized and signed documentation and manifests.

**3. Estimated Schedule**

The contractor will perform the SOW remediation activities according to the estimated project schedule presented in Figure 6. The contractor shall make regular updates to DHHL and DOH on the status of remedial activity and present advance notice and justification to both agencies of any needed changes in the schedule.

**4. References**

AMEC Earth and Environmental Inc. (AMEC). 2004. *Phase I Environmental Site Assessment at East Kapolei Brownfield, Kapolei Hawaii*. Prepared for the State of Hawai'i DBEDT, ASO Log No. 02-131. September.

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Hawai'i Revised Statutes (HRS) 128D. *Hawai'i Environmental Response Law (HERL), Chapter 128D*. [http://www.capitol.hawaii.gov/hrscurrent/Vol03\\_Ch0121-0200D/HRS0128D/](http://www.capitol.hawaii.gov/hrscurrent/Vol03_Ch0121-0200D/HRS0128D/)

Miles, C.J., Yanagihara, K., Ogata, S., Van De Berg, G., and Boesch, R. 1990. *Soil and Water Contamination at Pesticide Mixing and Loading Sites on Oahu, Hawaii*. Printed in: *Bulletin of Environmental Contamination and Toxicology*. 44:955-962. January 8.

## 5. Figures

Figure 1 – Former Pesticide Mixing and Loading Site Location and TMK Map

Figure 2 – Former Pesticide Mixing and Loading Site and Surrounding Planned Residential Development

Figure 3 – Aerial Photograph View of Former Pesticide Mixing and Loading Site

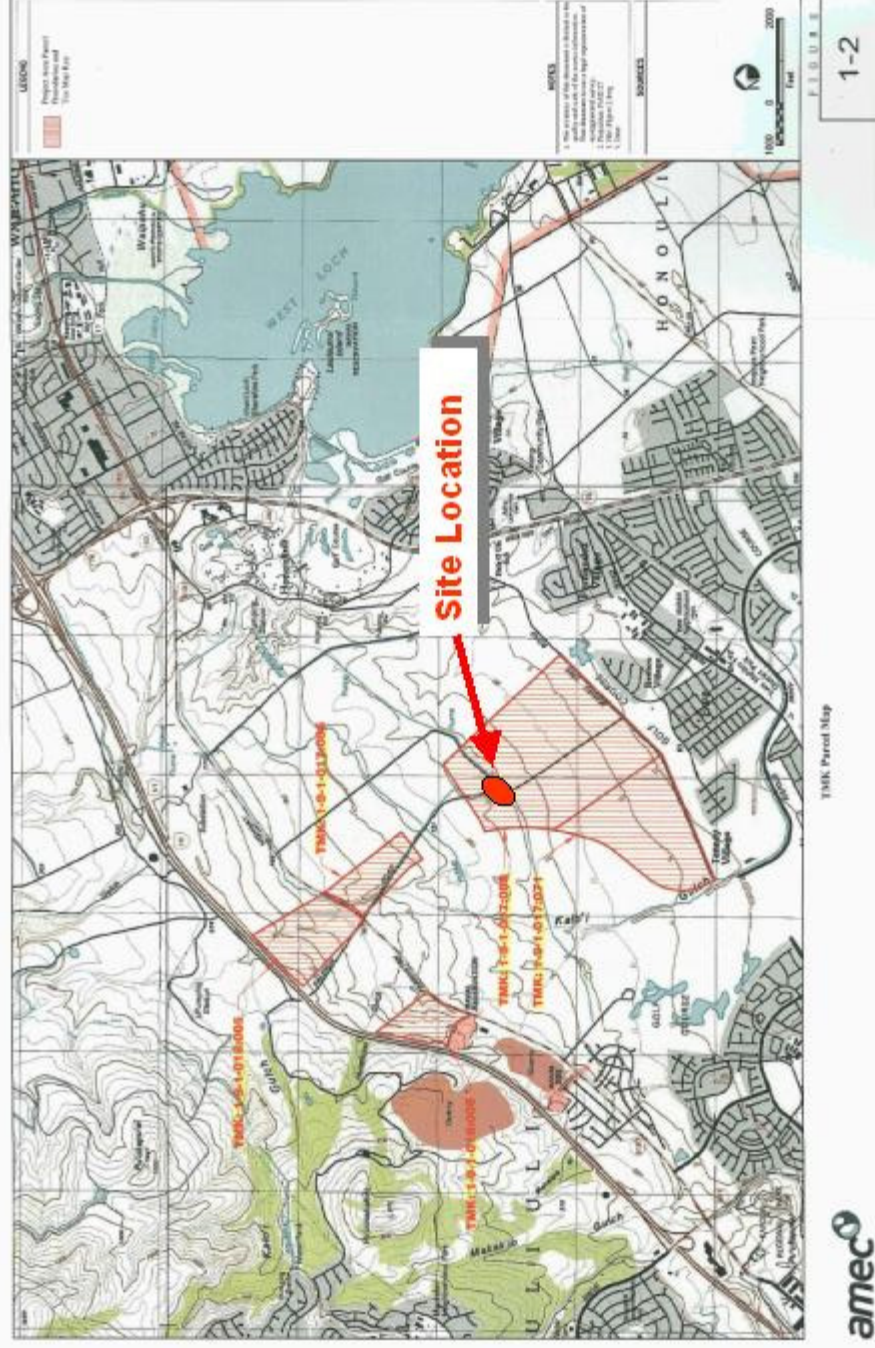
Figure 4 – Former Pesticide Mixing Site Structures

Figure 5 – Approximate Lateral Extent of Elevated Soil Contamination

Figure 6 – Estimated Remedial Schedule

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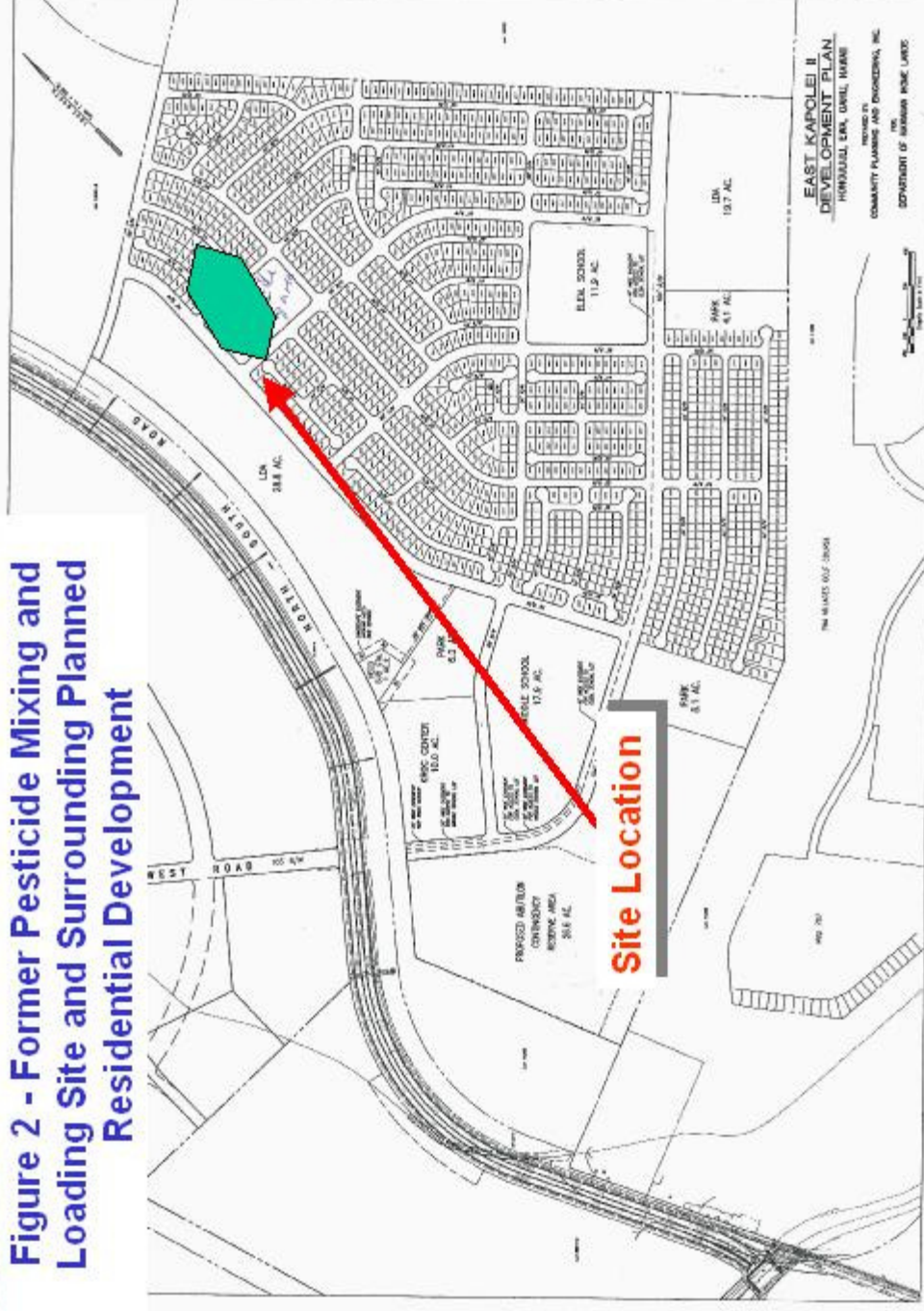


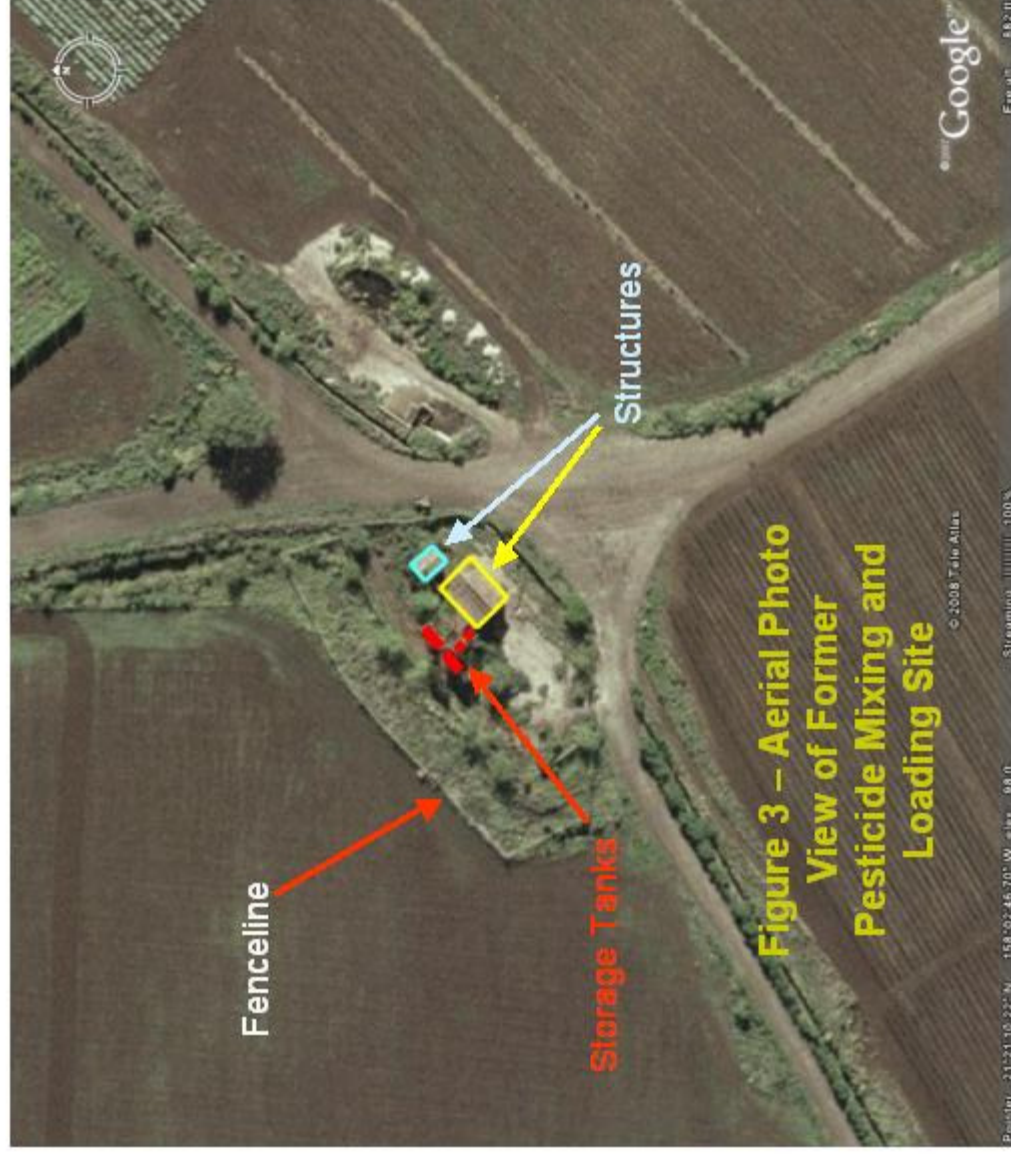
**Figure 1 - Former Pesticide Mixing and Loading Site Location and TMK Map**

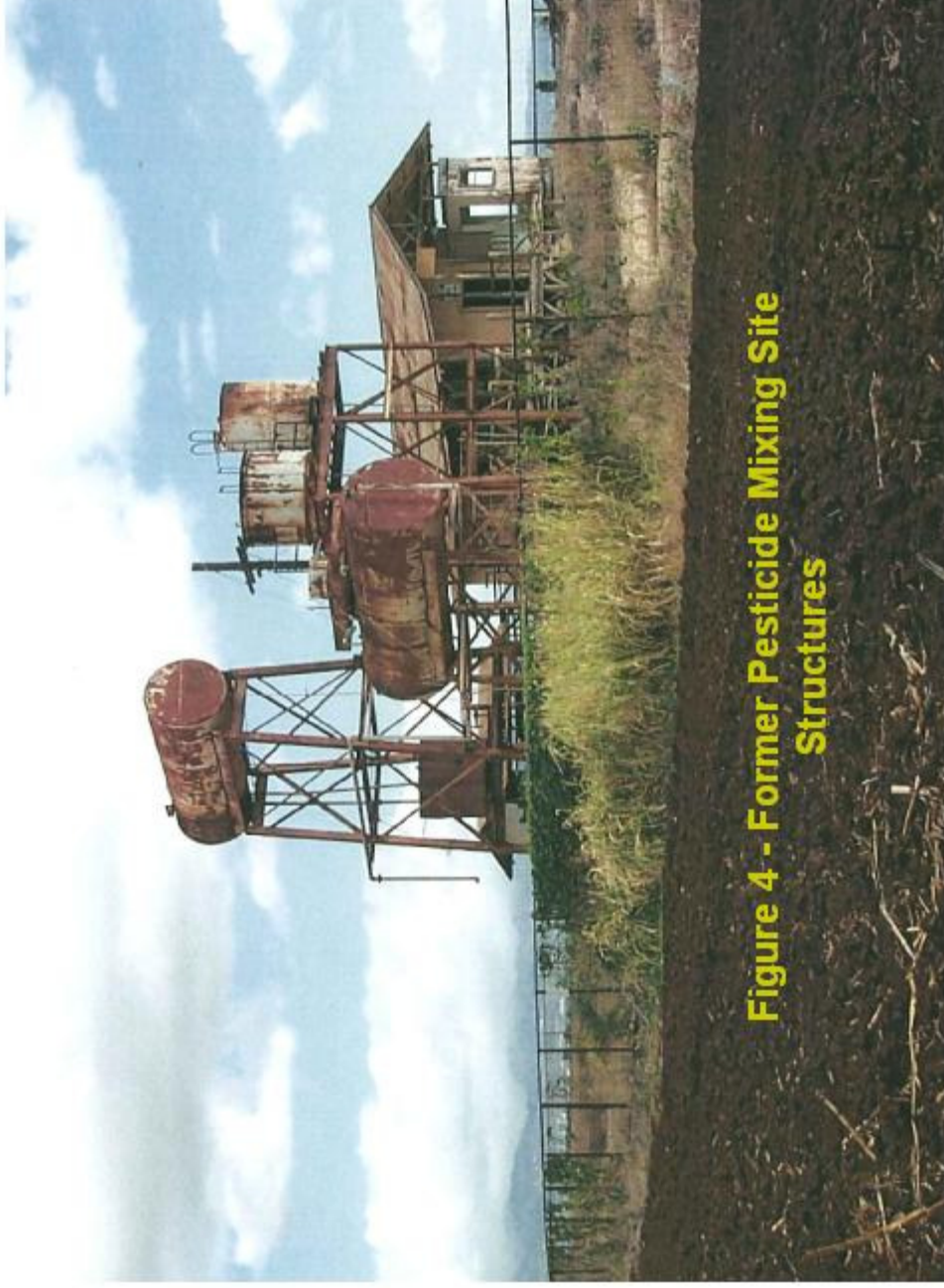


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**Figure 2 - Former Pesticide Mixing and Loading Site and Surrounding Planned Residential Development**



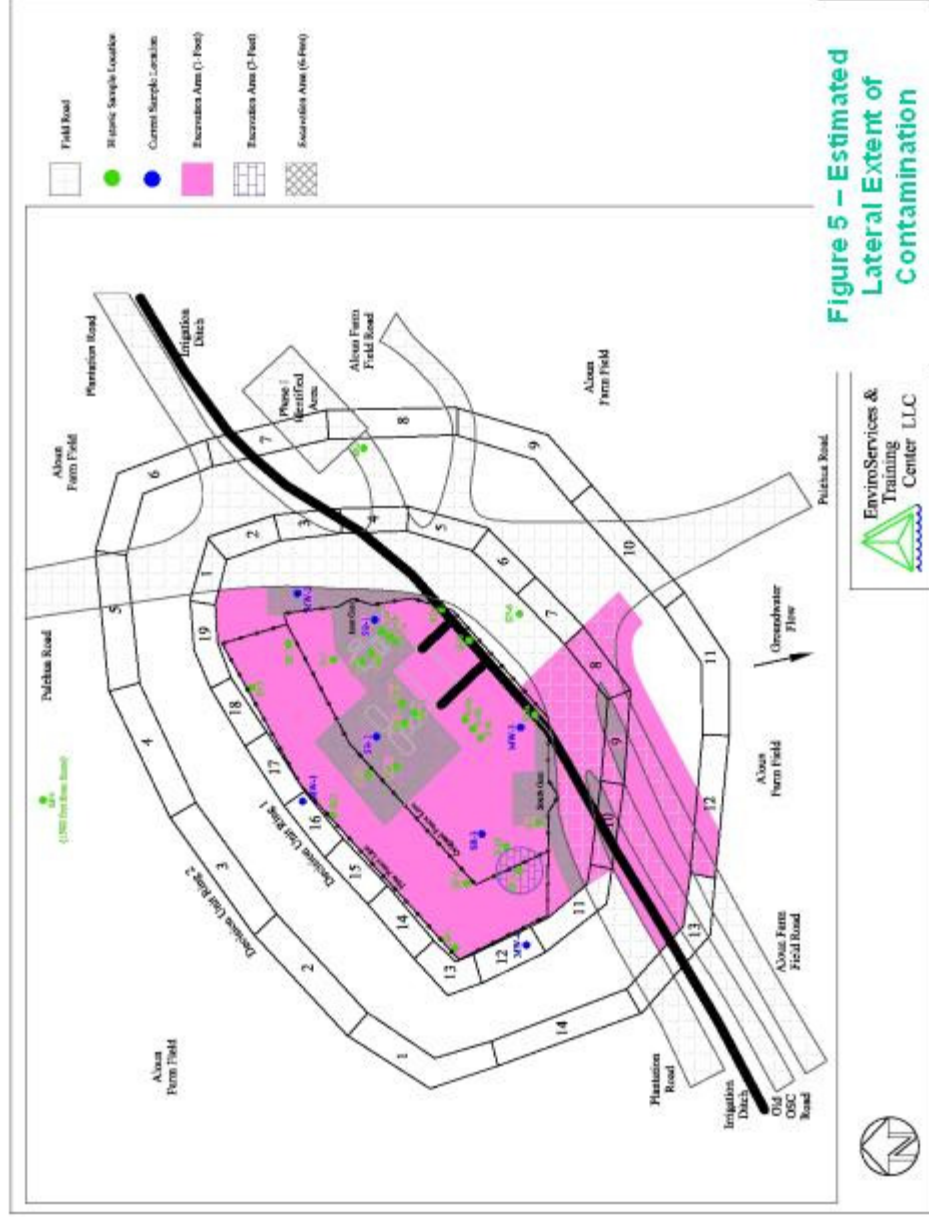




**Figure 4 - Former Pesticide Mixing Site Structures**



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Revised Draft Schedule East Kapolei PML Facility																																								
ID	Task Name	Duration	Start	Finish													2010												2011											
					3rd Quarter						4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter					
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov						
1	Notice to Proceed	1 day	Mon 6/15/09	Mon 6/15/09																																				
2	Initial Community Involvement	45 days	Tue 6/16/09	Mon 8/17/09																																				
3	Prepare Community Relations Plan	10 days	Tue 6/16/09	Mon 6/29/09																																				
4	EPA Review	15 days	Tue 6/30/09	Mon 7/20/09																																				
5	Preliminary CRP Implementation	20 days	Tue 7/21/09	Mon 8/17/09																																				
6	Health and Safety Plan	10 days	Tue 6/16/09	Mon 6/29/09																																				
7	HazMat Confirm Sampling/Analysis/Profile	20 days	Tue 6/30/09	Mon 7/27/09																																				
8	Site Demo & Haz Matl Disposal Plan	15 days	Tue 7/28/09	Mon 8/17/09																																				
9	Substructure Soil Sampling WP	15 days	Tue 7/28/09	Mon 8/17/09																																				
10	DOH/DHHL Review	10 days	Tue 8/18/09	Mon 8/31/09																																				
11	Finalize Soil Sampling WP	5 days	Tue 9/1/09	Mon 9/7/09																																				
12	Demolition & Hazardous Materials Disposa	35 days	Tue 9/8/09	Mon 10/26/09																																				
13	Demolition Site Work	15 days	Tue 9/8/09	Mon 9/28/09																																				
14	Demolition & Disposal Report	20 days	Tue 9/29/09	Mon 10/26/09																																				
15	Substructure Soil Sampling & Analysis	32 days	Tue 9/29/09	Wed 11/11/09																																				
16	Field Sampling	7 days	Tue 9/29/09	Wed 10/7/09																																				
17	Sample Analysis	25 days	Thu 10/8/09	Wed 11/11/09																																				
18	Environmental Hazard Evaluation	20 days	Thu 11/12/09	Wed 12/9/09																																				
19	Remedial Alternatives Analysis	20 days	Thu 12/10/09	Wed 1/6/10																																				
20	Draft Remedial Action Memorandum	10 days	Thu 1/7/10	Wed 1/20/10																																				
21	DOH/DHHL/EPA Review	15 days	Thu 1/21/10	Wed 2/10/10																																				
22	Finalize EHE/RAA/Draft RAM	10 days	Thu 2/11/10	Wed 2/24/10																																				
23	Continued Community Involvement	30 days	Thu 2/25/10	Wed 4/7/10																																				
24	Publish 30-Day Review Notice	1 day	Thu 2/25/10	Thu 2/25/10																																				
25	Compile Written Comments	30 days	Thu 2/25/10	Wed 4/7/10																																				
26	Public Meeting	1 day	Wed 3/17/10	Wed 3/17/10																																				
27	Finalize RAM	10 days	Thu 4/8/10	Wed 4/21/10																																				
28	Publish Notice of Availability	1 day	Thu 4/22/10	Thu 4/22/10																																				
29	Remedial Response Work Plan	20 days	Thu 4/22/10	Wed 5/19/10																																				
30	DOH/DHHL/EPA Review	15 days	Thu 5/20/10	Wed 6/9/10																																				
31	Finalize Remedial Response WP	5 days	Thu 6/10/10	Wed 6/16/10																																				
32	Bid Package	30 days	Thu 6/17/10	Wed 7/28/10																																				
33	DHHL Invitation to Bid	5 days	Thu 7/29/10	Wed 8/4/10																																				
34	Bid Period	30 days	Thu 8/5/10	Sun 9/5/10																																				
35	Award Selection & Contract Execution	45 days	Mon 9/6/10	Wed 10/20/10																																				
36	Notice to Proceed - Remediation	1 day	Thu 10/21/10	Thu 10/21/10																																				
37	Site Remediation	180 days	Fri 10/22/10	Tue 6/28/11																																				
38	Draft Confirmation Sampling Plan	20 days	Fri 10/22/10	Tue 11/16/10																																				
39	DOH/DHHL/EPA Review Draft SAP	15 days	Wed 11/17/10	Tue 12/7/10																																				